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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,431

11/14/2006

Patrick Lenoir

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FOLEY AND LARDNER LLP  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT

PAPER NUMBER

3743

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,431	<b>Applicant(s)</b> LENOIR, PATRICK	
	<b>Examiner</b> Stephen M. Gravini	<b>Art Unit</b> 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20070110 20060901</u> .                                       | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In that claim, it is recited "wherein a vector average of projections in a plane perpendicular to said web and stretching out in the transverse direction of said web, has a component parallel to the web that is smaller than said maximum web width of said web, said vectors representing respective trajectories of different jets sucked and/or blown combustion products" is construed to not be enabling. First, the specification is not clear as to the vector average of projections, because it is not clear what is intended to be claimed as "projections." Second, the earlier claim recitation "at least part of combustion products" and later claimed "respective trajectories of different jets sucked and/or blown combustion products" does not enable one skilled in the art to make and/or use the invention because it is not clear which part of the combustion product trajectory is claimed. Finally, "a vector average" is claimed but later "said vectors" is claimed is construed to be not enabling because it is not clear which vector is intended to be recited as the claimed invention.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. That claim recites “a vector average” and later recites “said vectors” which is construed to be indefinite because the later recitation lacks a positive antecedent basis.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-7, and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Robin et al. (US 6,088,930). The claims are reasonably and broadly construed, in light of the accompanying specification, to be disclosed by Robins, as comprising:

radiant elements **3** configured to radiate said web arranged in at least one row stretching out in a transverse direction to a substantially entire maximum web width (figure 3), and

at least a transversal convective system equipped with suction **2** and blowing **4** devices configured to suck at least part of combustion products

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produced by said radiant elements by a suction duct and configured to blow said part of the combustion products towards said web by a blowing duct, wherein said suction and blowing ducts stretch out in the transverse direction of said web (figure 2),

said convective system comprising at least a mixing device installed opposite of the web in relation to corresponding suction and blowing ducts, wherein the mixing device is arranged so as to suck and/or blow said combustion products, wherein a vector average of projections in a plane perpendicular to said web and stretching out in the transverse direction of said web, has a component parallel to the web that is smaller than said maximum web width of said web, said vectors representing respective trajectories of different jets of sucked and/or blown combustion products (figure 1). Robin also discloses the claimed component parallel to the web is smaller than approximately half of said maximum web width of the web (figure 1), wherein each mixing device and the corresponding blowing duct are arranged so that the vectors representing the respective trajectories of the different jets of combustion products blown on said web have, in projection to a plane perpendicular to the web and stretching out according to a median longitudinal axis of said web, a component that is not null (column 3 lines 6-15), wherein each mixing device and the corresponding suction and blowing ducts are arranged so that the vectors representing the respective trajectories of the different jets of sucked and/or blown combustion products are distributed in a substantially symmetrical way in relation to a plane perpendicular to said web and stretching out according to a median longitudinal axis of said

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web (figure 2), wherein said convective system includes at least one suction duct that stretches out at least in the transverse direction of the web, and at least one blowing duct that stretches out at least in the transverse direction of the web, wherein the suction duct and the blowing duct are separated from one another by a common wall(column 3 lines 6-15), wherein said common wall is equipped with devices configured to advance thermal exchanges between the sucked combustion products and the blown combustion products (column 3 lines 30-32), and at least two transversal convective systems arranged one after the other in a passing direction of the web and separated one from the other by at least one transversal row of the radiant elements (figure 2).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robin. Robin discloses the claimed invention, as rejected above, except for the claimed feature wherein each mixing device is arranged in such a way that the vector average, wherein the vector average is an average of vectors representing the respective trajectories of different jets of sucked and/or blown combustion products by each of said mixing devices, of projections in a plane perpendicular to the web and stretching out in the transverse direction of said web is substantially perpendicular to said web or substantially null. It would have been an obvious matter of design choice to recite a particular vector directional representation, since the teachings of Robin would perform the invention, as claimed regardless of the vector plane projection.

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robin in view of Joiner (US 5,416,979). Robin discloses the claimed invention, as rejected above, except for the claimed feature wherein said transversal convective system has a first exterior casing for suction of said combustion products, wherein said first exterior casing has in a longitudinal cross-section according to a plane perpendicular to said web and stretching out according to a median longitudinal axis of said web a substantially U-shaped cross-section with an opening towards the web, wherein said U-shaped first exterior casing substantially stretches out in the transverse direction of the web, wherein said transversal convective system has a second internal casing inside the first external casing for blowing said combustion products, wherein said second internal casing has a wall with a substantially U-shaped longitudinal

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cross-section with an opening towards the web, wherein said second internal casing stretches out in the transverse direction of the web inside said first external casing, wherein the U-shaped wall of the second internal casing has several first openings, wherein a device to blow air under pressure is arranged substantially in an axis of each first opening so as to create a Venturi effect, so as to suck at least a part of the combustion products and to blow them towards the web, wherein the U-shaped wall of the second internal casing has several second openings stretching out in the transverse direction of the web, wherein a cylindrical rotor with radial blades rotating around an axis parallel to the web, said axis being substantially perpendicular to a passing direction of the web, is installed on an interior side of the first external casing in front of each of the second openings, wherein the first or second openings are made in a tube formed by a wall of the transversal convective system that is substantially parallel to the web. Joiner, another web dryer, discloses that feature at column 2 line 55 through column 5 line 58 and shown in figure 2. It would have been obvious to one skilled in the art to combine the teachings of Robin with the feature wherein said transversal convective system has a first exterior casing for suction of said combustion products, wherein said first exterior casing has in a longitudinal cross-section according to a plane perpendicular to said web and stretching out according to a median longitudinal axis of said web a substantially U-shaped cross-section with an opening towards the web, wherein said U-shaped first exterior casing substantially stretches out in the transverse direction of the web, wherein said transversal convective system has a second internal casing inside



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the first external casing for blowing said combustion products, wherein said second internal casing has a wall with a substantially U-shaped longitudinal cross-section with an opening towards the web, wherein said second internal casing stretches out in the transverse direction of the web inside said first external casing, wherein the U-shaped wall of the second internal casing has several first openings, wherein a device to blow air under pressure is arranged substantially in an axis of each first opening so as to create a Venturi effect, so as to suck at least a part of the combustion products and to blow them towards the web, wherein the U-shaped wall of the second internal casing has several second openings stretching out in the transverse direction of the web, wherein a cylindrical rotor with radial blades rotating around an axis parallel to the web, said axis being substantially perpendicular to a passing direction of the web, is installed on an interior side of the first external casing in front of each of the second openings, wherein the first or second openings are made in a tube formed by a wall of the transversal convective system that is substantially parallel to the web, of Joiner, for the purpose of providing a rounded and encompassed cross section to more effectively and efficiently dry a web.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robin in view of Cirrito (4,146,361). Robin discloses the claimed invention, as rejected above, except for the claimed feature wherein said convective system at least has one turbine, an axis of which is substantially perpendicular to the web, wherein each turbine has a centrifugal turbine wheel of which a suction opening is connected to an upstream transversal suction duct in relation to the

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web, wherein sucked combustion products are blown through two tangential outlet openings substantially directly opposite in the transverse direction of the web and connected to the transverse blowing duct adjacent to the suction duct, wherein said convective system has at least two turbines arranged in a row stretching out in the transverse direction of the web, wherein each turbine cooperates with a corresponding suction and blowing duct stretching out transversally along a respective part of the width of the web. Cirrito, another web device, discloses that feature at column 4 lines 5-59 and shown in figures 1-9 and 12-13. It would have been obvious to one skilled in the art to combine the teachings of Robin with the turbine features of Cirrito, for the purpose of providing an optimum turbine heating source while using combustion gases to blow and remove drying gases from a web to be dried for efficient use of energy.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an

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invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-20 of copending Application No. 10/591,393. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been an obvious matter of design choice to include the currently claimed vectors with the copending application, since both applications would perform the invention as claimed regardless of the recited vectors.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references cited with this action teach one or more features of the claimed invention, but are not relied upon in rejecting the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth B. Rinehart can be reached on 571 272 4881.

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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 19, 2009  
/Stephen M. Gravini/  
Primary Examiner, Art Unit 3743